Attorney Docket No.: 018890-000200US Client Reference No.: JHU 4391

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. National Phase of PCT/US2004/043114 of:

Saeed R. Khan

Application No.: Not yet assigned

Filed: Herewith

For: BORONIC ACID ARYL

ANALOGS

Confirmation No.:

Examiner:

Art Unit:

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 and §1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references in compliance with the requirements of 37 CFR §1.98(a)(2) are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Also enclosed is a copy of an International Search Report dated May 17, 2005, which was filed in corresponding PCT application no. PCT/US04/043114, and in which these references were filed.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that <u>no fee is required</u> for submission of this statement, because this submission is prior to the issuance of a first Office Action on the merits.

However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

-Kawai Lau

Reg. No. 44,461

TOWNSEND and TOWNSEND and CREW LLP

Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834

Tel: 858-350-6100 Fax: 415-576-0300

KL:tsp 60803062 v1

Subs	Substitute for form 1449A/PTO			Complete if Known		
				Application Number		
IN	FORMATION DISC	CLO	SURE	Filing Date		
S	STATEMENT BY APPLICANT			First Named Inventor	Khan, Saeed R.	
				Art Unit		
	(Use as many sheets as ne	cessary	()	Examiner Name		
Sheet	1	of	3	Attorney Docket Number	018890-000200US	

U.S. PATENT DOCUMENTS								
Examiner Initials*	Cite No.1	Document Number Number Kind Code ^{2 (M known)}	Publication Date MM-DD-YYYY	Name of Patentse or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
	AA	US-						
	АВ	US-						
	AC	US-		(4) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	**************************************			
	AD	US-						
	ΑE	us-						
	AF	US-		The state of the s				
	AG	US-						
	АН	US-						
	AI	US-			Consequence of the second seco			
),	AJ	us-	, , , , , , , , , , , , , , , , , , , ,					
	AK	US-	d	The second secon				
	AL	US-						
	АМ	US-						
	AN	US-						
	AO	US-	er					
	AP	บร-						
	AQ	US-			allininatus merer er			
	AR	us-	3-3-10-11-13-14-14-14-14-14-14-14-14-14-14-14-14-14-	···				

	FOREIGN PATENT DOCUMENTS										
	No.1		F	oreign Patent Do	cument	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages			
Initials*		Country Code ³	Number ⁴	Kind Code ⁵ (<i>if known</i>)	MM-DD-YYYY	Applicant of Cited Document	or Relevant Figures Appear	T⁵			
	AŞ	EP	0947511	A1	10/06/1999	F. Hoffmann-La Roche AG					
	AT	PCT	WO91/17749	A1	11/28/1991	Baylor College of Medicine					
	ΑU	PCT	WO03/106384	A2	12/24/2003	Johns Hopkins University					
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ΑV										
	AW										

Examiner	Date	
Signature	Considered	

Substitute	for form 1449B/PT	0		Complete if Known		
				Application Number		
INFO	RMATION	DISCLOS	SURE	Filing Date		
STA	TEMENT E	Y APPLIC	CANT	First Named Inventor	Khan, Saeed R.	
				Art Unit		
	(Use as many she	ets as necessary)		Examiner Name	·	
Sheet	2	of	3	Attorney Docket Number	018890-000200US	

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²			
	AX	KUMAR, S.K., et al. "Design, Synthesis, and Evaluation of Novel Boronic-Chalcone Derivatives as Antitumor Agents", <i>Journal of Medicinal Chemistry</i> (2003) 46(14):2813-2815				
	AY	BOUGET, K., et al. "Hydrazino-Aza and N-Azapeptoids with Therapeutic Potential as Anticancer Agents", <i>Bioorganic & Medicinal Chemistry</i> (2003) 11(23):4881-4889				
	AZ	YANG, W., et al. "Boronic Acid Compounds As Potential Pharmaceutical Agents", <i>Medicinal Research Reviews</i> (2003) 23(3):346-368				
	ВА	DICESARE, N., et al. "Chalcone-analogue fluorescent probbes for saccharides signaling using the boronic acid group", Tetrahedron Letters (2002) 43(14):2615-2618				
	ВВ	SERAFIN, B. et al. "Arylboronic Compounds - VIII", Tetrahedron (1963) 19:821-826				
	вс	CATLIN, Joseph C., et al. "Synthesis, Reactions, and Mass Spectral Studies of Some Cyclic Amine-Boranes and Their Catechol Derivatives", <i>The Journal of Organic Chemistry</i> (1969) 34(6):1664-1668				
	BD	CATLIN, Joseph C., et al. "Preparation and Reactions of o-(Cyanomethyl)benzeneboronic Acid", <i>The Journal of Organic Chemistry</i> (1969) 34(6):1660-1663				
	BE	SNYDER, H.R., et al. "Synthesis of Aromatic Boronic Acids. Aldehydo Boronic Acids and a Boronic Acid Analog of Tyrosine", <i>Journal of the American Chemical Society</i> (1958) 80:835- 838				
	BF	FU, Jm, et al. "Connections to the Directed Ortho Metalation Strategy. Pd(0)-Catalyzed Cross Coupling of Aryl Boronic Acids with Aryl Triflates", <i>Tetrahedron Letters</i> (1990) 31(12):1665-1668				
	BG	STRACHAN, Jon-Paul, et al. "The preparation of some 1,7b-disubstituted cyclopropa[c] isoquinolines via nitril ylide cyclisations and their rearrangement to 2-benzazepines and 4-alkenyl-1,4-dihydroisoquinolines", Journal of the Chemical Society, Perkin Transactions 1 (1998) 13:807-812				
	ВН	YANG, N. et al. "Nickel-Catalyzed Cross-Couplings of Cyclohexenyl Phosphate and Arylboronic Acids", <i>Tetrahedron Letters</i> (1999) 40(17):3321-3324				

	 	
Examiner Signature	Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

Substitute	for form 1449B/PT	o			Complete if Known
				Application Number	
INFO	RMATION	I DISCLOS	SURE	Filing Date	
STATEMENT BY APPLICANT				First Named Inventor	Khan, Saeed R.
				Art Unit	
	(Use as many she	eets as necessary)	ı	Examiner Name	
Sheet	3	of	3	Attorney Docket Number	018890-000200US

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	ВІ	KOBAYASHI, Yuichi, et al. "Zinc Borates: Functionalized Hard Nucleophiles for Coupling Reactions with Secondary Allylic Acetates", <i>European Journal of Organic Chemistry</i> (2000) 3825-3834	
:	BJ	FALCK, J.R., et al "Bromo-Boronolactonization of Olefins", <i>The Journal of Organic Chemistry</i> (2001) 66(21):7148-7150	
	ВК	FALCK, J.R., et al. "Homocoupling of alkyl-, alkenyl-, and arylboronic acids", <i>Tetrahedron Letters</i> (2002) 43(45):8149-8151	
	BL	JIANG, Weiqin, et al. "Furoyl and Benzofuroyl Pyrroloquinolones as Potent and Selective PDE5 Inhibitors for Treatment of Erectile Dysfunction", Journal of Medicinal Chemistry (2003) 46(3):441-444	
	ВМ	Database Beilstein, Beilstein Crossfire Institut Zur Foerderung Der Chemischen Wissenschaften; Citation No. 2508506; BRN 488408 1991, XP002327019, Abstract & Serafin, et al: Roczniki Chemii Annales Societatis Chimicae Polonorum, (1961) 35:359-362	
	BN	ROBERTS, David C., et al. "Pluripotential Amino Acids I. (L)-p-Dihydroxyborylphenylalanine (L-Bph) as a Precursor of L-Phe and L-Tyr Containing Peptides; Specific Tritiation of L-Phe-Containing Peptides at a Final Step in Synthesis", <i>Tetrahedron Letters</i> (1980) 21(36):3435-3438	
	во		

	· · · · · · · · · · · · · · · · · · ·	·		
			ĺ	-
Examiner		l Da	ate	
Signature		l Co	onsidered	
	<u> </u>		onsidered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.